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09/134,981 08/17/98 GOLDMAN

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EXAMINER

TM02/1002

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 11

Application Number: 09/134,981
Filing Date: August 17, 1998
Appellant(s): GOLDMAN, DAVID A.

Mark Levy
For Appellant

EXAMINER'S ANSWER

MAILED
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Technology Center 2100

This is in response to appellant's brief on appeal filed August 15, 2001.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1-9 and 11-20.

Claim 10 has been canceled.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because claims 1-11, 12-19 and 20 are intended a same scope of claim. For example, all independent claims 1, 12 and 20 claimed that inputting an embroidery image data file; process the image data file by creating skeletal and edge

contour; generates output images by connecting lines and labeling of skeletal and edge contour of images. For this reason, the claims should be grouped together.

(8) Claims Appealed

A substantially correct copy of appealed claims 1-9, 11-14, 16-18 and 20 appear on pages A-1 to A-6 of the Appendix to the appellant's brief. The minor errors are as follows: Claims 15 and 19 are not listed from the Appendix.

(9) Prior Art of Record

5,740,056

Futamura

4-1998

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-9, 11-20 are rejected under 35 U.S.C. 102(e). This rejection is set forth in prior Office Action, Paper No. 7.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-9 and 11-20 are rejected under 35 U.S.C. § 102(e) as being anticipated by Futamura patent number 5,740,056.

As for claims 1, 12 and 20, Futamura teaches a system for automatically producing an embroidery design (see col 2 lines 21-30 of the specification), the system comprising:

a) means for inputting an embroidery pattern into an image data file (see col 1 lines 17-25 of the specification), the image data file comprising a plurality of pixels (see col 5 lines 1-25 of the specification), each pixel comprising a bitmap representing a color (see col 2 lines 20-30 of the specification);

b) processing means operatively connected to said inputting means for storing said image data file (see col 5 lines 19-24 of the specification);

c) an embroidery data generating mechanism operatively connected to said processing means for generating complex embroidery pattern directly from a scan, color image (see col 5 lines 1-25 and col 2 lines 21-30 of the specification).

As for claims 2 and 16, Futamura teaches the embroidery data generating mechanism comprises:

1) segmenting means for characterizing each pixel with the image data file into an object (see col 5 lines 10-30 of the specification);

2) means for classifying each of said objects as a thin object or thick object (see col 3 lines 40-48 of the specification);

3) means for locating and interpreting a set of regular and singular regions for embroidery data point generation (see col 5 lines 19-24 of the specification);

4) path generation means for computing an optimum sew order for at least one extracted column (see col 5 lines 51-67 of the specification);

5) embroidery output means for generating an embroidery output file (see col 5 lines 1-3 of the specification).

a) means for inputting an embroidery pattern into an image data file (see col 1 lines 17-25 of the specification), the image data file comprising a plurality of pixels (see col 5 lines 1-25 of the specification), each pixel comprising a bitmap representing a color (see col 2 lines 20-30 of the specification);

b) processing means operatively connected to said inputting means for storing said image data file (see col 5 lines 19-24 of the specification);

c) an embroidery data generating mechanism operatively connected to said processing means for generating complex embroidery pattern directly from a scan, color image (see col 5 lines 1-25 and col 2 lines 21-30 of the specification).

As for claims 2 and 16, Futamura teaches the embroidery data generating mechanism comprises:

1) segmenting means for characterizing each pixel with the image data file into an object (see col 5 lines 10-30 of the specification);

2) means for classifying each of said objects as a thin object or thick object (see col 3 lines 40-48 of the specification);

3) means for locating and interpreting a set of regular and singular regions for embroidery data point generation (see col 5 lines 19-24 of the specification);

4) path generation means for computing an optimum sew order for at least one extracted column (see col 5 lines 51-67 of the specification);

5) embroidery output means for generating an embroidery output file (see col 5 lines 1-3 of the specification).

As for claims 3 and 18, Futamura teaches line-fitting means for line-fitting each object (see col 5 lines 41-50 of the specification), wherein an object comprises an outer contour, an predetermined number of inner contours, and a skeleton contour, said line-fitting means comprising a gallusneurath triangular filter (see col 5 lines 41-58 of the specification).

As for claims 4 and 13, Futamura teaches stitch angle determination means for determining a stitch angle that produce a minimal plurality of fragments (see col 6 lines 41-67 of the specification).

As for claims 5 and 14 and 19, Futamura teaches generate path means for determining an optimal order for the plurality of fragments to be sewn (see col 7 lines 5-16 of the specification).

As for claims 6, Futamura teaches labeling means for labeling a plurality of points on the skeleton and edge contours (see fig 5 and col 5 lines 25-50 of the specification).

As for claims 7 and 15, Futamura teaches merging means for merging series of points from the plurality of points on the skeleton contour (see fig 7 and col 6 lines 38-41 of the specification).

As for claim 8, Futamura teaches coding means for evaluating a plurality of singular regions (see col 8 lines 42-45 of the specification).

As for claim 9, Futamura teaches smooth means for evaluating sequence of stroke normal (see col 5 lines 51-58 of the specification).

As for claims 11 and 17, Futamura teaches wherein said object comprises a plurality of connected or contiguous pixels having uniform color (see col 5 lines 10-30 of the specification).

(11) Response to Argument

The appellant's argument on page 10 that the embroidery designs by Futamura does not process color images. **First**, the applicant admitted on page 4 of "REMARKS" of paper number 6 that the prior art Futamura teaches in the same field of the invention that is "automatically generating an embroidery design". Futamura teaches monochrome embroidery design image. The monochrome images displays black and white colors. Black and white is considered color types. The applicant claimed "...the image data file comprising a plurality of pixel, each pixel comprising a bitmap represent a color. Col 5 lines 10-12 as cited in the previous office action, Futamura teaches each pixel is represented by one bit of data having a value of 0 or 1 for white and black. Therefore, this citation meets the claim limitations. **Second**, on page 11 the appellant supports his argument by saying that "independent claim 1 call for creating and interrelating skeletal and edge contours, which clearly relate to processing a color". This process has nothing to do with processing color. This process is simply following the guide line such as labeling, skeletal and edge contours of an image to be sewed. For example, Futamura, shown in figure 4-5 a process of making up the "smoke ring" the border lines L0 are to be sewed which it will follow the guide line of L0 ring , this

step meets the argument that is interrelating skeletal and edge contours within the L0 ring.


On page 11, the appellant's argued that Futamura does not anticipate such a combination of classifying and line-fitting with the use of edge and skeletal contours. Figure 4-6 disclosed such feature. For example, figure 6 disclosed a resultant fine-line of image (see col 6 lines 9-17) the connection of a smoke ring by thin line. Figure 5, Futamura disclosed a borderline of a "smoke ring" (see fig 3 lines 66-67) and figure 4 disclosed a thick line of the ring (see col 2 line 60-67).

On pages 11-15, the appellant's argued that "Futamura neither identifies nor processes regular and singular regions". Column 8 lines 42-57 teach stitch processing and region labeling. For example, in steps 2-12 teaches extracting borderline and pickup continuous line component of image pattern. This means that the embroidery process has to follow the guideline pattern such as L0, L1, L2, L3 ring etc. and the region of thickness of the ring in order to produce an image such as smoke pipe as disclosed in figure 4. Further, figure 7 disclosed plurality of labeling points and lines are being connected along the labeling points in order to produce a smoke pipe image.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


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September 25, 2001

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